2) 200 E. Steven L. Oh, Esther H. Walsh, Michael

SEQUENCE LISTING

<120> Methods of Diagnosing Liver Fibrosis

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Ile Cys Ala Asn Gly Arg Gln Thr Val Ser Trp Ala Val Thr Pro Lys
20 25 30

tca tta gga aat gtg aat ttc act gtg agc gca gag gca cta gag tct

tca tta gga aat gtg aat ttc act gtg agc gca gag gca cta gag tct 144 Ser Leu Gly Asn Val Asn Phe Thr Val Ser Ala Glu Ala Leu Glu Ser 35 40 45

caa gag ctg tgt ggg act gag gtg cct tca gtt cct gaa cac gga agg 192 Gln Glu Leu Cys Gly Thr Glu Val Pro Ser Val Pro Glu His Gly Arg 50 55 60

aaa gac aca gtc atc aag cct ctg ttg gtt gaa cct gaa gga cta gag
Lys Asp Thr Val Ile Lys Pro Leu Leu Val Glu Pro Glu Gly Leu Glu
65 70 75 80

aag gaa aca aca ttc aac tcc cta ctt tgt cca tca ggt ggt gag gtt 288 Lys Glu Thr Thr Phe Asn Ser Leu Leu Cys Pro Ser Gly Gly Glu Val

90

RECEIVED TOWN TO STOOM AND TO S

									cca Pro							336
									gac Asp							384
									ccc Pro							432
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									aag Lys 170							528
									aac Asn							576
									ggc Gly							624
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									caa Gln							720
									agg Arg 250							768
Asn	Asn	Ala	Ile 260	Lys	Gly	Gly	Val	Glu 265	gat Asp	Glu	Val	Thr	Leu 270	Ser	Ala	816
Tyr	Ile	Thr 275	Ile	Ala	Leu	Leu	Glu 280	Ile	cct Pro	Leu	Thr	Val 285	Thr	His	Pro	864
Val	Val 290	Arg	Asn	Ala	Leu	Phe 295	Cys	Leu	gag Glu	Ser	Ala 300	Trp	Lys	Thr	Ala	912
caa	gaa	999	gac	cat	ggc	agc	cat	gta	tat	acc	aaa	gac	ctg	ctg	gcc	960

Gln 305	Glu	Gly	Asp	His	Gly 310	Ser	His	Val	Tyr	Thr 315	Lys	Asp	Leu	Leu	Ala 320	
							aac Asn									1008
							gtg Val									1056
							gca Ala 360									1104
cag Gln	gct Ala 370	ccc Pro	tct Ser	gct Ala	gag Glu	gtg Val 375	gag Glu	atg Met	aca Thr	tcc Ser	tat Tyr 380	gtg Val	ctc Leu	ctc Leu	gct Ala	1152
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Thr	Asn	Ile	Val	Lys 405	Trp	Ile	acg Thr	Lys	Gln 410	Gln	Asn	Ala	Gln	Gly 415	Gly	1248
Phe	Ser	Ser	Thr 420	Gln	Asp	Thr	gtg Val	Val 425	Ala	Leu	His	Ala	Leu 430	Ser	Lys	1296
Tyr	Gly	Ala 435	Ala	Thr	Phe	Thr	agg Arg 440	Thr	Gly	Lys	Ala	Ala 445	Gln	Val	Thr	1344
Ile	Gln 450	Ser	Ser	Gly	Thr	Phe 455	tcc Ser	Ser	Lys	Phe	Gln 460	Val	Asp	Asn	Asn	1392
Asn 465	Arg	Leu	Leu	Leu	Gln 470	Gln	gtc Val	Ser	Leu	Pro 475	Glu	Leu	Pro	Gly	Glu 480	1440
Tyr	Ser	Met	Lys	Val 485	Thr	Gly	gaa Glu	Gly	Cys 490	Val	Tyr	Leu	Gln	Thr 495	Ser	1488
Leu	Lys	Tyr	Asn 500	Ile	Leu	Pro	gaa Glu	Lys 505	Glu	Glu	Phe	Pro	Phe 510	Ala	Leu	1536
							act Thr									1584

515 520 525

Ser Phe Gln Ile	Ser Leu			agc cgc tct Ser Arg Ser	
tcc aac atg gcg Ser Asn Met Ala 545	_				
ctg aag cca aca Leu Lys Pro Thr			_		
aca gaa gtc ago Thr Glu Val Ser 580	Ser Asn		. Ile Tyr Leu		
aat cag aca ctg Asn Gln Thr Leu 595					_
aga gat ctg aaa Arg Asp Leu Lys 610	Pro Ala				
gat gag ttt gca Asp Glu Phe Ala 625					
gga aat gct tga Gly Asn Ala *	agaccaca	ag gctgaaaa	gt gctttgctg	g agtcctgttc	1972
	220202 00				
tcagagetee acag	aayaca cy	rigititity ta	tctttaaa gac	ttgatga ataaa	2032 2041
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Lys	Gli	ı Th	r Th:	r Pho	e Asr	ı Ser	Leu	ı Leı	ı Cy:	s Pro	o Se:	r Gl	∕ Gl°	v Glı	ı Val
				85					90					95	ı Ser
			100)				105	5				110)	
		11:	5				120)				125	5		a Met
	130) .				135	;				140)			Gln
Asn 145	Met	: Va	l Lei	ı Phe	Ala 150		Asn	Ile	Туз			ı Asp	Туз	Leu	ı Asn
		Glı	ı Glr	ı Leı			Glu	Ile	Lys	155 Ser		s Ala	ı Ile	e Gla	160 Tyr
				165	5				170)				175	,
			180)				185					190)	Gly
		195	5				200					205			Thr
	210					215					220)			Tyr
11e 225	Phe	Ile	e Asp	Glu	Ala 230	His	Ile	Thr	Gln	Ala 235		Ile	Trp	Leu	Ser
Gln	Arg	Gln	Lys	Asp	Asn		Cys	Phe	Arg	Ser		Gly	Ser		240 Leu
Asn	Asn	Ala	Ile 260	Lys		Gly	Val	Glu 265			Val	Thr			Ala
Tyr	Ile	Thr 275	· Ile		Leu	Leu	Glu 280		Pro	Leu	Thr		270 Thr	His	Pro
Val	Val 290			Ala	Leu	Phe 295		Leu	Glu	Ser	Ala 300	285 Trp	Lys	Thr	Ala
Gln		Gly	Asp	His	Gly		His	Val	Tyr	Thr	Lys	Asp	Leu	Leu	Ala
305					310	•				315					320
				325	Ala				330					335	
			340		Glu			345					350	His	
Glu	Arg	Pro 355	Gln	Lys	Pro	Lys	Ala 360	Pro	Val	Gly	Asp	Phe 365	Tyr	Glu	Pro
Gln	Ala 370	Pro	Ser	Ala	Glu	Val 375	Glu	Met	Thr	Ser	Tyr 380	Val	Leu	Leu	Ala
Tyr	Leu	Thr	Ala	Gln	Pro		Pro	Thr	Ser	Glu		Leu	Thr	Ser	Ala
385 Thr	Asn	Ile	Val	Lvs	390 Trp	Ile	Thr	Lvs	Gln	395	λan	ח ח	Gl n	<i>α</i> 1	400
				405					410					415	
Phe	Ser	Ser	Thr 420	Gln	Asp	Thr		Val 425	Ala	Leu	His	Ala	Leu 430	Ser	Lys
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Asn .	Arg	Leu	Leu	Leu	Gln		Val	Ser	Leu	Pro		Leu	Pro	Gly	Glu
465					470					475					480
Tyr				485					490					495	
Leu 1	ьys	ıyr	ASN	тте	ьeu	Pro	GLu	Ĺys	Glu	Glu	Phe	Pro	Phe	Ala	Leu

500 505 Gly Val Gln Thr Leu Pro Gln Thr Cys Asp Glu Pro Lys Ala His Thr 520 Ser Phe Gln Ile Ser Leu Ser Val Ser Tyr Thr Gly Ser Arg Ser Ala 535 540 Ser Asn Met Ala Ile Val Asp Val Lys Met Val Ser Gly Phe Ile Pro 550 555 Leu Lys Pro Thr Val Lys Met Leu Glu Arg Ser Asn His Val Ser Arg 565 570 Thr Glu Val Ser Ser Asn His Val Leu Ile Tyr Leu Asp Lys Val Ser 585 Asn Gln Thr Leu Ser Leu Phe Phe Thr Val Leu Gln Asp Val Pro Val 600 605 Arg Asp Leu Lys Pro Ala Ile Val Lys Val Tyr Asp Tyr Tyr Glu Thr 615 Asp Glu Phe Ala Ile Ala Glu Tyr Asn Ala Pro Cys Ser Lys Asp Leu 625 630 635 Gly Asn Ala

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tgg ctg ata gcc ccc agc agg gcc tgc acc tgt gtc cca ccc cac cca 155
Trp Leu Ile Ala Pro Ser Arg Ala Cys Thr Cys Val Pro Pro His Pro
20 25 30

cag acg gcc ttc tgc aat tcc gac ctc gtc atc agg gcc aag ttc gtg 203 Gln Thr Ala Phe Cys Asn Ser Asp Leu Val Ile Arg Ala Lys Phe Val 35 40 45

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Gly Thr Pro Glu Val Asn Gln Thr Thr Leu Tyr Gln Arg Tyr Glu Ile
50 60

aag atg acc aag atg tat aaa ggg ttc caa gcc tta ggg gat gcc gct 299 Lys Met Thr Lys Met Tyr Lys Gly Phe Gln Ala Leu Gly Asp Ala Ala 65 70 75

gac atc egg ttc gtc tac acc ecc gcc atg gag agt gtc tgc gga tac 347

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Asp 80	,	Arg	Phe	Val	Tyr 85	Thr	Pro	Ala	Met	Glu 90	Ser	Val	Cys	Gly	Tyr 95	
										ttt Phe						395
_	_	_			_					tgc Cys						443
										ggc Gly						491
										ccc Pro						539
										tgg Trp 170						587
			-							cac His						635
										ctg Leu						683
tga *	atc	ctgc	ccg (gagto	ggaa	ct ga	aagc	ctgc	a ca	gtgt	ccac	cct	gttc	cca		736
	ccat 0> 4	ctt 1	tctt	ccgga	ac aa	atgaa	aataa	a aga	agtta	acca	ccca	agc				782
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	0> 4 Ala	Pro	Phe	Glu	Pro	Leu	Ala	Ser	Glv	Ile	Leu	Leu	Leu	Leu	Trp	
1				5					10	Val				15		
T. ~ · ·	тте	нта		oer.	нту	wid	Cys	25	cys	val	FIO	F10	30	FIU	9111	
	- דת	Dha	20 Cve	7) cr	Co~	7 0	Len	7/27	Tla	Dr~	Δla	Laze	Dho	77⇒7	Glv	
Thr		35	Cys			_	40			Arg		45				
Thr Thr	Pro 50	35 Glu	Cys Val	Asn	Gln	Thr	40 Thr	Leu	Tyr	Arg Gln Leu	Arg 60	45 Tyr	Glu	Ile	Lys	

Ile Arg Phe Val Tyr Thr Pro Ala Met Glu Ser Val Cys Gly Tyr Phe 85 90 His Arg Ser His Asn Arg Ser Glu Glu Phe Leu Ile Ala Gly Lys Leu 105 100 Gln Asp Gly Leu Leu His Ile Thr Thr Cys Ser Phe Val Ala Pro Trp 120 125 Asn Ser Leu Ser Leu Ala Gln Arg Arg Gly Phe Thr Lys Thr Tyr Thr 135 Val Gly Cys Glu Glu Cys Thr Val Phe Pro Cys Leu Ser Ile Pro Cys 150 155 Lys Leu Gln Ser Gly Thr His Cys Leu Trp Thr Asp Gln Leu Leu Gln 165 170 Gly Ser Glu Lys Gly Phe Gln Ser Arg His Leu Ala Cys Leu Pro Arg 185 Glu Pro Gly Leu Cys Thr Trp Gln Ser Leu Arg Ser Gln Ile Ala 200